

Notice of Allowability

Application No.

09/931,576

Examiner

Javid A. Amini

Applicant(s)

WILKINSON ET AL

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/17/2005.
2. ☒ The allowed claim(s) is/are 1,4-6,9,10,13,15 and 17-30.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 3/19/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


JAVID A. AMINI
PRIMARY EXAMINER

Javid A Amini
Examiner
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Allowable Subject Matter

Claims 1, 4-6, 9-10, 13, 15, 17-30 allowed.

Claims 2-3, 7-8, 11-12, 14 and 16 canceled without traverse.

Drawings

The following changes to the drawings have been approved by the examiner and agreed upon by applicant (Stephen Pang on 8/24/2005): Applicant agreed to send new set of drawings 1-6 to correct the hand written labels. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

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Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

An Examiner's amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stephen Pang on 8/24/2005 and on 8/30/2005.

The application has been amended as follows:

1. Claim 1.

A computing device executing a graphics rendering software program providing instructions to one or more processors to render graphics on a display, the computing device configured to establish a network connection with at least one other computing device, comprising:

a graphics driver configured to render a plurality of drawing surfaces, including a first drawing surface and a second drawing surface, on the display, and

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a memory storing graphic objects having a plurality of attributes, wherein attributes from the plurality of attributes are selected from a group consisting of: color[,] and font, wherein each graphic object represents a drawing surface of the plurality of drawing surfaces,

wherein the graphics driver is configured to render the first drawing surface on the display at least partially overlapping where a portion of the second drawing surface was as a set of rectangular clip segments, wherein when the first drawing surface is rendered as partially overlapping the second drawing surface, the visible portion of the second drawing surface is rendered as the set of rectangular clip segments, wherein the set of rectangular clip segments is selected from a group consisting of: one rectangular clip segment, two rectangular clip segments, three rectangular clip segments[,] and four rectangular clip segments, wherein the plurality of attributes of the graphic objects also includes the set of rectangular clip segments, and

wherein the graphics driver is configured to determine the second drawing surface comprising the portion of the second drawing surface and the visible portion of the second drawing surface,

wherein the graphics driver is further configured to increment a visibility tag corresponding to the second drawing surface when the portion of the second drawing surface is to be overlapped by a portion of the first drawing surface, and

wherein the graphics driver is configured to compute the set of rectangular clip segments if the visibility tag corresponding to the second drawing surface is dissimilar to a visibility tag corresponding to the first drawing surface.

2. Claims 2-3 Canceled without traverse.
3. See amendment dated June 17, 2005, page 7 for the claims 4-5

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4. Claim 6.

A computing device executing a graphics rendering software program providing instructions to one or more processors to render graphics on a display computing device configured to establish a network connection with at least one other computing device, comprising:

a graphics driver configured to render a plurality of drawing surface, including a first drawing surface on a display of the computing device and a second drawing surface on the display of the computing device, and

a memory storing graphic objects having a plurality of attributes selected from a group consisting of: color, font[,], and clipping region, wherein each of the graphic objects represents a drawing surface of the plurality of drawing surfaces,

wherein the graphics driver is configured to render the first drawing surface on the display of the computing device at least partially overlapping a region of the second drawing surface on the display of the computing device that was rendered on the display of the computing device,

wherein, when the first drawing surface is rendered on the display of the computing device as partially overlapping the region of the second drawing surface, a visible portion of the second drawing surface is rendered on the display of the computing device,

wherein a plurality of attributes for a graphic object representing the second drawing surface also includes a set of rectangular clip segments, wherein the set of rectangular clip segments is selected from a group consisting of: one rectangular clip segment, two rectangular clip segments, three rectangular clip segments[,], and four rectangular clip segments,

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wherein the graphics driver is configured to determine the second drawing surface comprising the portion of the second drawing surface and the visible portion of the second drawing surface,

wherein the graphics driver is further configured to increment a visibility tag corresponding to the second drawing surface when the portion of the second drawing surface is to be overlapped by a portion of the first drawing surface, and

wherein the graphics driver is also configured to compute the set of rectangular clip segments if the visibility tag corresponding to the second drawing surface is dissimilar to a visibility tag corresponding to the first drawing surface.

5. Claims 7-8, 14 and 16 canceled without traverse.
6. See amendment dated June 17, 2005, pages 8-9 for the claims 9-10, 13, 15 and 17.
7. Claim 18.

A computing device executing a graphics rendering software program providing instructions to one or more processors to render graphics on a display, the computing device configured to establish a network connection with at least one other computing device, comprising:

a graphics driver configured to render a plurality of drawing surfaces, including a first drawing surface and a second drawing surface, on the display, and

a memory configured to store graphic objects having a plurality of attributes, wherein attributes from the plurality of attributes are selected from a group consisting of color, font and clip region, wherein each of the graphic objects represents a drawing surface of the plurality of drawing surface,

wherein the graphics driver is configured to render the first drawing surface at least partially overlapping where a portion of the second drawing surface was rendered on the display, and configured to render a visible portion of the second drawing surface as a set of clip segments, wherein the set of clip segments is selected from a group consisting of: one clip segment, two clip segments, three clip segments[,] and four clip segments,

wherein, when the first drawing surface is rendered as partially overlapping the second drawing surface, the visible portion of the second drawing surface is rendered as the set of rectangular clip segments,

wherein [a] the set of clip segments is stored as [a] graphic objects corresponding to the second drawing surface,

wherein each clip segment of the set of clip segments is iteratively output to the display for displaying the visible portion of the second drawing surface,

wherein the clip segments are stored as attributes of the graphic objects representing the second drawing surface, and

wherein the graphics driver is further configured to increment a visibility tag corresponding to the second drawing surface when the portion of the second drawing surface is to be overlapped by a portion of the first drawing surface, and

wherein the graphics driver is configured to compute the set of clip segments if the visibility tag corresponding to the second drawing surface is dissimilar to a visibility tag corresponding to the first drawing surface.

8. See amendment dated June 17, 2005, page 11 for the claim 19.

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9. Claim 20 amended as follows: on page 12, last line should be inserted “and” between the terms “three clip segments” and “four clip segments”. The last line of claim 20 should read as:

segment, two clip segments, three clip segments[,] and four clip segments.

10. See amendment dated June 17, 2005, pages 12-13 for the claims 21-30.

The following is an examiner's statement of reasons for allowance:

The main reason the present invention overcomes the prior art is illustrated in fig. 13 that the graphics rendering mechanism for providing overlapping drawings surfaces on an embedded device display using rectangular clip segments. The method of rendering graphics including overlapping drawing surfaces on a display of an embedded computing device is also provided including computing a set of clip segments corresponding to a visible portion of a partially obscured drawing surface, and rendering the partially obscured drawing surface along with an overlapping drawing surface on the display.

New numbering of claims:

Old number	New number	Type of claim
1	1	Independent
2	Canceled	
3	Canceled	
4	2	Dependent
5	3	Dependent
6	7	Independent
7	Canceled	
8	Canceled	

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9	8	Dependent
10	12	Dependent
11	Canceled	
12	Canceled	
13	13	Dependent
14	Canceled	
15	4	Dependent
16	Canceled	
17	9	Dependent
18	10	Independent
19	11	Dependent
20	14	Independent
21	15	Dependent
22	16	Dependent
23	17	Dependent
24	18	Dependent
25	19	Dependent
26	20	Dependent
27	21	Dependent
28	22	Dependent
29	5	Dependent

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30	6	Dependent
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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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